Friday Flyer - January 25, 2013

CENTER SPOTLIGHT - Wayne State University -

http://hep.physics.wayne.edu/web/quarknet/

Contact Robert Harr or Paul Karchin to learn how to adjust a student summer program to include more students.

The Wayne State University QuarkNet Center is in its seventh year. In 2012, WSU ran a masterclass and a summer student program. Three teachers and about 20 students attended the CMS masterclass. The summer program was organized as three two-week sessions, each with four students. This enabled WSU to select 12 students from a wide range of backgrounds for the program. There were 80 applicants for 12 positions, indicating a growing awareness and interest in the program. The sessions were organized around projects with the cosmic ray detectors. Students spent about half the day working with detectors and the other half of the day learning the basics of particle physics and data analysis using the e-Lab. Presentations by a number of Wayne State faculty introduced the students to research in general and particle physics in particular. At the end of each session, the students gave a presentation about the results of their experiment and what they had learned. Mentors provided feedback on the presentations and the experimental results. The presentations and other material from the sessions are available on their website (above).

News from QuarkNet Central - Centers have begun to plan for this year's summer workshops. Through the Friday Flyer, you have been able to peek in on other QuarkNet centers. Perhaps some of the activities would work for your center. Have questions? Contact the mentor from those spotlighted programs.

Physics Experiment Roundup - A bullet through an

apple http://www.symmetrymagazine.org/article/january-2013/a-bullet-through-anapple "Physicists have begun the first full run of proton-lead collisions in the Large Hadron Collider to learn more about the beginning of our universe." All four major experiments will be taking data at the same time. (from *symmetrymagazine.org*, Jan. 2013)

Resource of the Week - Need some **HELP?** http://ed.fnal.gov/help/ Check out Fermilab's Handbook of Engaged Learning Projects. It covers everything from prairies to protons for all ages. AND it's FREE!

Just for Fun – **Precocious Protons** - http://www.symmetrymagazine.org/article/january-2013/precocious-protons "Ask a bunch of 10-year-olds this question: Would you rather hear about the journey of a proton through Fermilab's accelerators, or would you rather be a proton and take that journey yourself?" (from *symmetrymagazine.org*, Jan. 2013)

QuarkNet Staff TeachersKen Cecire, kcecire@nd.eduBobPeterson, rspete@fnal.govTom Jordan, jordant@fnal.govKrisWhelan, kkwhelan@uw.edu